

REMARKS

Claims 1 to 93 are pending in this application, of which claims 1, 20, 35, 51, 57, 64, 71, 78, 86, 87, 90, 91, and 92 are independent claims. By this amendment, Applicants have amended claims 1, 20, 35, 51, 56, 57, 64, 71, 78, and 86-93. No new matter has been added through these amendments. Support for the amendments may be found throughout the specification, and at least at page 7, lines 5 and 10-11 in the specification. Additionally, applicants have amended claims 80, 86-89, and 93 to correct typographical errors.

Claim Rejections – 35 U.S.C. § 103(a)

The Examiner rejected claims 1-3, 5-7, 9-17, 20-22, 24, 25, 27-32, 92, and 93 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,191,319 to Kiltz.

Applicants' amended independent claims 1, 20, and 92 now require, among other things, that the audio input be in a digital music file format, and that a lighting program be executed to generate control signals to control a plurality of LEDs, wherein the lighting program is arranged to control the plurality of LEDs to display a lighting sequence comprising at least two lighting effects spaced in time.

Kiltz fails to teach or suggest an audio input in a digital music file format, as now required by Applicants' amended independent claims 1, 20, and 92. Rather, Kiltz clearly teaches receiving an audio input signal in an analog format. The circuit elements taught by Kiltz and shown in Fig. 1, which receive the audio input signal from the music source, are all analog circuit elements, particularly the analog-to-digital converter 60 that is needed to create digital signals for processing by the decode logic 70. Applicants respectfully argue that it would not have been obvious to modify the system taught by Kiltz to receive digital signals. Making such a modification would require a complete overhaul with numerous design changes needed to make the system taught by Kiltz work on digital music. Nothing cited by the Examiner, including Kiltz itself, teaches or suggests such numerous design changes, or how the modification may otherwise be achieved.

For these reasons alone, Applicants' amended independent claims 1, 20, and 92 are patentable over Kiltz.

Kiltz also fails to teach or suggest executing a lighting program to generate control signals to control a plurality of LEDs, wherein the lighting program is arranged to control the plurality of LEDs to display a lighting sequence comprising at least two lighting effects spaced in time.

In the Office Action, the Examiner states that he believes that "applicant [sic] is reading upon the term program too narrowly." The Examiner cites a definition of the word "program" from the American Heritage College Dictionary, which the Examiner then uses to allege that Kiltz does indeed disclose a 'program', according to the cited dictionary definition. With all due respect to the Examiner, the word "program" does not appear anywhere in Kiltz. Thus, it is inappropriate for the Examiner to rely on any extraneous source, such as a dictionary, to interpret a term of art that does not even appear in Kiltz.

The word "program" does, however, appear throughout Applicants' specification and claims. Applicants, as the authors of their specification and claims (through their attorneys), have made it clear that a "program" is a term of art that refers to a software-based series of instructions executed on a processor, as is their right. Repeatedly in their specification, Applicants use the words "program" and "software" interchangeably. For example, in paragraph [0028], Applicants state that "while music player software provides a convenient means of translating digitally formatted music for listening, and in some cases also provides a screen-based graphical interface for visually appreciating music, existing programs have limited functionality with respect to the visualization of music" (emphasis added). Further, in paragraph [0030], Applicants state that "[t]he assignee of the present application has previously developed other systems on which users can author lighting programs including one more lighting sequences . . . Therefore, a description will initially be provided of authoring software and playback devices for lighting programs to control a lighting system . . ." (emphasis added). Applicants also indicate, in paragraph [0136], that "reference to a computer program that, when executed, performs the above-discussed functions is not

limited to an application program, but rather is used herein in the generic sense to reference any type of computer code (e.g., software or microcode) that can be employed to program a processor to implement the above-discussed aspects of the present invention.”

Applicants’ claims also make this point clear. In addition to the independent claims mentioned above, all of which require that a program be executed, Applicants’ dependent claim 9, for example, refers to executing a lighting program having at least one variable that has an input value. Applicants’ dependent claims 14, 15, and 19 refer to a mapping and a mapping function, respectively. Applicants’ dependent claim 19 also refers to changing the mapping function performed by the lighting program in response to an input received from a user interface. Execution, receiving an input value as a variable, performing a mapping/a mapping function, and changing a function in response to an input received from a user interface, as terms of the art, are all emblematic of software instructions executed on a processor. Most tellingly is Applicants independent claims 20, 51, 66, and 71, which each require a computer readable medium encoded with a program. This language is representative of the well-known language used in the famous case of *In re Beauregard*, relating to software instructions executed on a processor, which case the Examiner is of course familiar with.

Thus, despite the Examiner’s cited dictionary definition, Applicants’ disclosure reflects that their use of the word “program” refers to “software”, even though the word “software” does not appear in the claims. As the Federal Circuit has recently made clear in *Phillips v. AWH Corporation*, 415 F.3d 1303 (2005, *en banc*), it is the claims and specification as written by the Applicant(s) that should be used to interpret any terms at issue in the claims.

Further, while Kiltz does teach turning a light on and off at a particular intensity, this is the only so-called “lighting effect” that the system taught by Kiltz is capable of producing. Applicants’ system is not so limited. Indeed, Applicants’ specification discloses many other effects that may be achieved, and the various combinations thereof, including pulse effects, rainbow washes, and color washes; *see at least* specification pages 9-12 and page 28, lines

6-18. In Kiltz, to display *any single one* of these effects would require numerous design changes and modifications to the circuitry of the system that is taught in Kiltz. To be able to display *any and all* of these effects, with the various combinations and other modifications described in Applicants' specification pages cited above, Kiltz would require a full-scale overhaul of the design, and many numerous modifications to the circuitry, of the system that is taught in Kiltz. Nowhere in Kiltz does Kiltz teach or suggest making such design changes or modifications, or what those design changes or modifications might be, or if such changes or modifications are desirable or even possible. Thus, Applicants respectfully argue that it is not obvious to modify the system taught in Kiltz to create Applicants' claimed invention.

In summary, Kiltz does not teach or suggest an audio input in a digital music file format, or executing a lighting program to generate control signals to control a plurality of LEDs, wherein the lighting program is arranged to control the plurality of LEDs to display a lighting sequence comprising at least two lighting effects spaced in time, as is required by Applicants' amended claims 1, 20, and 92. Therefore, Applicants' amended independent claims 1, 20, and 92 patentably distinguish over Kiltz and are in allowable condition.

Further, as Applicants' dependent claims 2-3, 5-7, 9-17, 21-22, 24, 25, 27-32, and 93 depend from allowable independent claims 1, 20, and 92, respectively, these dependent claims are also allowable over Kiltz.

The Examiner next rejected claims 4, 18, 19, 23, 33-40, 42-51, 53-60, 62-67, 69-74, 76-82, and 84-91 under 35 U.S.C. § 103(a) as allegedly being obvious over U.S. Patent No. 5,191,319 to Kiltz in view of U.S. Patent No. 5,461,188 to Drago. Applicants' dependent claims 4, 18, 19, 23, and 33-34 depend from independent claims 1 and 20, respectively. As shown above, Applicants' independent claims 1 and 20 are allowable over Kiltz, and therefore Applicants' dependent claims 4, 18, 19, 23, and 33-34 are also allowable over Kiltz.

Applicants' remaining independent claims 35, 51, 57, 64, 71, 78, 86, 87, 90 and 91 are similar to amended independent claims 1, 20, and 92 and all now require, among other things, that an audio input be in a digital music file format, and a lighting program be

executed to generate control signals to control a plurality of LEDs, wherein the lighting program is arranged to control the plurality of LEDs to display a lighting sequence comprising at least two lighting effects spaced in time. At least for the reasons discussed above in connection with claims 1, 20, and 92, Kiltz does not teach or suggest these features, and therefore Applicants' amended independent claims 35, 51, 57, 64, 71, 78, 86, 87, 90 and 91 also patentably distinguish over Kiltz and are in condition for allowance.

Further, as Applicants' dependent claims 36-40, 42-50, 53-60, 62-63, 65-67, 69-70, 72-74, 76-77, 79-82, 84-85, and 88-89 depend from allowable independent claims 35, 51, 57, 64, 71, 78, 86, 87, 90 and 91, respectively, these dependent claims are also allowable.

The Examiner next rejected dependent claims 8 and 26 under 35 U.S.C. § 103(a) as allegedly being obvious over Kiltz in view of U.S. Patent No. 6,618,031 to Bohn Jr. The Examiner also rejected dependent claims 41, 52, 61, 68, 75, and 83 under 35 U.S.C. § 103(a) as allegedly being obvious over (1) Kiltz in view of Drago in further view of Bohn Jr., and (2) Kiltz in view of Drago in further view of Pohlman's Principles of Digital Audio Third Edition. Applicants' dependent claims 8 and 26 depend from allowable independent claims 1 and 20, respectively; thus claims 8 and 26 are themselves allowable. Similarly, Applicants' dependent claims 41, 52, 61, 68, 75, and 83 depend from allowable independent claims 35, 52, 57, 64, 71, and 78, respectively; thus claims 41, 52, 61, 68, 75, and 83 are themselves allowable.

As noted above, each of Applicants' dependent claims depends from an allowable independent claim. Thus, Applicants believe that it is unnecessary at this time to argue the allowability of each of the dependent claims individually. However, Applicants do not necessarily concur with the interpretation of the dependent claims as set forth in the Office Action, nor do Applicants concur that the basis for the rejection of any of the dependent claims is proper. Therefore, Applicants reserve the right to specifically address the patentability of the dependent claims in the future, if deemed necessary.

CONCLUSION


It is respectfully believed that all of the pending issues have been addressed. However, the absence of a reply to a specific rejection, issue or comment set forth in the Office Action does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Furthermore, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify any concession of unpatentability of the claim prior to its amendment.

In view of the foregoing amendments and remarks, this application should now be in condition for allowance. A notice to this effect is respectfully requested. If, after this amendment, the Examiner believes that the application is not in condition for allowance, the Examiner is requested to call the Applicants' representative at the number indicated below to discuss any outstanding issues relating to the allowability of the application.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicants hereby request any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 06-1448, reference CKB-005.01.

Respectfully submitted,

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